



Metropolitan Planning Organization  
for the Miami Urbanized Area

# Transportation Voice

## *Bus Rapid Transit: A Good Mobility Option for Miami-Dade?*

Fall 2004

### Traveling Faster with Bus Rapid Transit

**B**us Rapid Transit (BRT) is a fast mode of transportation that combines the quality of trains with the flexibility of buses. It can operate on exclusive lanes, High Occupancy Vehicle (HOV) lanes, expressways, and major roadways. A BRT system combines advanced technologies, exclusive lanes for vehicles, cleaner and quieter vehicles, rapid and convenient fare collection, and better integration with development.

Faster travel times and the use of advanced technologies are central characteristics of BRT systems. BRT offers a variety of features that distinguishes it from local bus systems commonly provided by transit agencies. Specific features that distinguish BRT and local transit service from each other

#### **BUS RAPID TRANSIT**

##### **COMPONENTS**

- ◆ Dedicated Lanes
- ◆ State of the Art Stations
- ◆ Enhanced Vehicles
- ◆ Increased Services
- ◆ Efficient Routes
- ◆ Off-Board Fare Collection
- ◆ Intelligent Transportation Systems

are the use of dedicated lanes, state of the art stations, enhanced vehicles, and other components listed in the above box.

### BRT in Miami-Dade County

**O**ver the years, there has been a change of lane, a change of name, but the focus remains the same providing premium bus services to Miami-Dade residents.

The 95 Express carries about 1,600 passengers daily from the Golden Glades Interchange to downtown Miami using the I-95 HOV lane for a less stressful, more comfortable ride to work.

In 1997, the South Miami-Dade Busway opened as a dedicated lane system that runs from Dadeland South Metrorail Station to Cutler Ridge. This bus service carries an average of 12,900 riders daily speeding up travel time and

putting residents in the fast lane. An extension for this busway to Florida City is currently under construction. For more information on these systems, please contact the MDT Hotline at (305) 770-3131.



South Miami-Dade Busway

### Did You Know?

The roots of Bus Rapid Transit in Miami-Dade County can be traced to 1974 when residents could “Dash” or “Streak” through traffic. The Blue Dash zipped down South Dixie Highway (US-1) from Sunset Drive to Jackson Memorial Hospital. Over 1,500 residents rode daily for 10 years, until the inauguration of the Metrorail in 1984.



The Orange Streaker took approximately 2,000 riders daily down 7<sup>th</sup> Avenue from the Golden Glades Interchange to the Civic Center and Downtown areas. For speedy travel, flashing strobe lights, attached to the buses, changed the traffic lights upon approaching the intersection.

These two systems provided a faster means of travel through the County and have evolved to meet the demands of today's travelers.



### Inside this issue...

*Vehicle Designs* ..... 2

*Advanced Technologies*..... 2

*Benefits of Bus Rapid Transit*. 3

*Faster Routes* ..... 3

*Calendar of Events*..... 4

## Vehicle Designs

**T**he design features of a BRT ease the efforts of users entering the bus, therefore decreasing boarding times. Low floor buses, stations with level platforms, and multiple doors allow buses to stop and continue towards their destinations in a relatively short period of time.

Environmentally-friendly buses that are usually identified by a unique color scheme and use alternative fuels and propulsion systems can be characteristic of a BRT system's fleet. Articulated (accordion style) buses are also available for use on corridors with higher passenger load demands.



*Las Vegas BRT Vehicle*

## Station Designs

**B**RT stations often provide customer information and amenities commonly associated with rail systems like the arrival time of BRT vehicles. Station designs have a common and consistent look throughout the BRT system, but with allowance for differences to permit stations to integrate with the local urban community. Many existing BRT stations combine simplicity, functionality, and architectural integration with the community.



*Boston Silverline Station*

## Advanced Technologies

**T**he availability of reliable information regarding a system's travel times is a valuable resource for its users. Real-time information obtained through the use of an automatic vehicle location (AVL) system can be available to riders in a variety of formats: over the internet and on information kiosks at stations/bus stops.

Signal prioritization enables buses to affect the timing of a traffic signal to their advantage, the benefit being the ability to proceed through an intersection quicker, or before general-purpose traffic (queue jumping).

Automated fare collection, such as cashless fare payment systems or electronic smart cards, allow for increased travel times. Fare collection that requires the user to have exact change can impede bus-boarding times. With the use of automated fare collection, bus boarding or dwell time is decreased. Changing fare collection policies to reduce or eliminate on-vehicle fare payment can speed boarding. Using vehicle designs that feature fewer steps and more or wider doors can also reduce dwell time.

## BRT Internationally

Australia  
Brazil  
Canada  
Colombia  
Chile  
England  
Ecuador  
France  
Japan  
Mexico  
Netherlands  
New Zealand  
Peru

## BRT Nationally





Brisbane, Australia Busway

## Faster Routes

Strategically locating stops at quarter-mile to one-mile intervals increases operating speeds, but still maintains walkability to the system. Limiting bus stop frequency is a route enhancement that allows a BRT system to be efficient by straightening routes and providing more

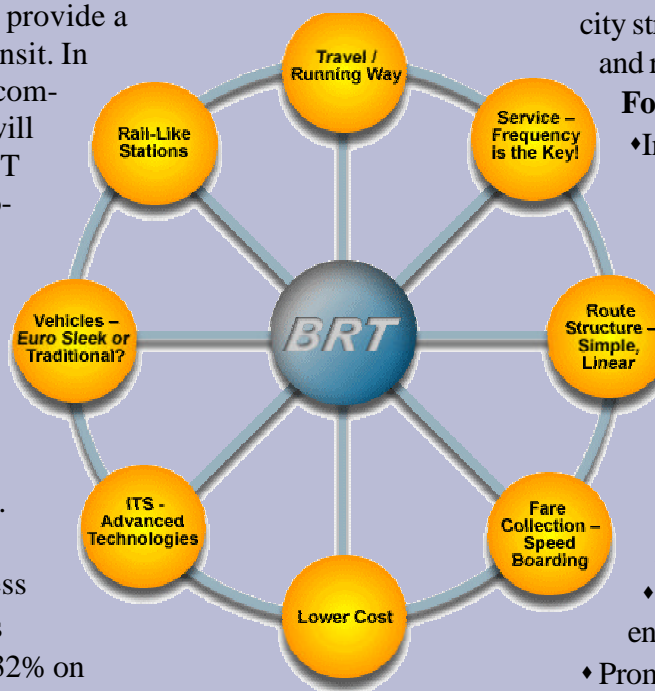
direct service. Busways, HOV lanes, or designated rights-of-way reduce the occurrence of delays caused by traffic congestion. The implementation of queue jumpers (See “Advanced Technologies”) for BRT systems mingling with mixed traffic affords a bus greater flexibility as well.

## Benefits of Bus Rapid Transit

Reducing travel time will provide a benefit to all users of transit. In addition, faster service, combined with better information will improve transit ridership. BRT can also help in the effort to promote transit-oriented land development. Understanding BRT features provides transportation planners the ability to offer a new transit option to the public which combines the ease-of-use of some rail service with the flexibility of bus service.

### For Transit Users:

- ♦ More buses with better access
- ♦ Shorter travel and wait times
- ♦ Time savings range up to 29-32% on



city streets and up to 47% on busways and reserved lanes

### For Transit Operators:

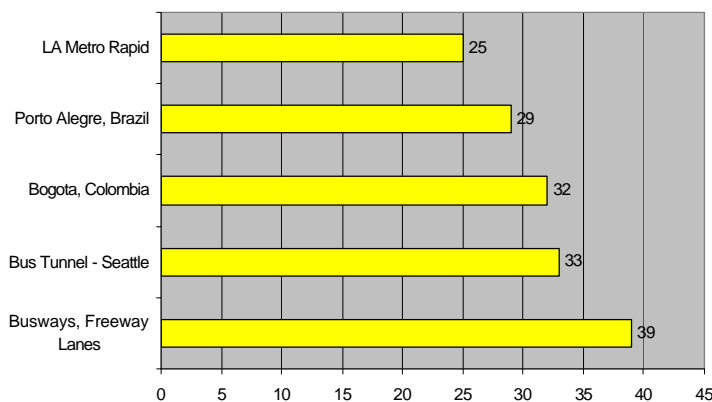
- ♦ Increased ridership
- ♦ U.S. BRT systems report 20-80% ridership increases
- ♦ Better utilization of resources
- ♦ Economical to build (BRT costs average \$.5-1.5 M per mile)
- ♦ Higher operating efficiency than conventional bus
- ♦ Incremental development and customization

### For the General Public:

- ♦ Reduced congestion, emissions, and energy use
- ♦ Promotes positive land uses

BRT Goals and Advantages

Average Travel Time Savings (%) Along BRT Corridors



## Traveling Into the BRT Future

The MPO is currently conducting a BRT Opportunities Study to examine the potential of implementing BRT services along major transportation corridors within Miami-Dade County.

Once completed, the MPO Governing Board will determine which corridors are appropri-

ate to implement BRT technologies. Some corridors will become pilot projects to be quickly implemented.

To obtain more information regarding this and other studies being conducted by the MPO visit [www.miamidadegov/mpo](http://www.miamidadegov/mpo) or call (305) 375-4507.

## Get Involved

Join these MPO Citizen Committees!

- ◆ The Citizen Transportation Advisory Committee (CTAC)
- ◆ The Bicycle/Pedestrian Advisory Committee (BPAC)
- ◆ Transportation Aesthetic Review Committee (TARC)
- ◆ The Freight Transportation Advisory Committee (FTAC)

Contact the MPO Secretariat at (305) 375-4507

Send us your ideas on Transportation!

Contact us by e-mail at: [mpo@miamidade.gov](mailto:mpo@miamidade.gov)

[www.miamidade.gov/mpo](http://www.miamidade.gov/mpo)

## Calendar of Events

All meetings are held at the Stephen P. Clark Center,  
111 NW First Street unless otherwise noted.

		Aug.	Sep.	Oct.
<b>MPO:</b>	2:00 p.m.	No meeting	23 <sup>rd</sup>	21 <sup>st</sup>
<b>TPC:</b>	2:00 p.m.	No meeting	13 <sup>th</sup>	12 <sup>th</sup>
<b>TPTAC:</b>	10:00 a.m.	No meeting	No meeting	6 <sup>th</sup>
<b>LRP:</b>	2:00 p.m.	24 <sup>th</sup>	28 <sup>th</sup>	26 <sup>th</sup>
<b>CTAC:</b>	5:30 p.m.	25 <sup>th</sup>	22 <sup>nd</sup>	20 <sup>th</sup>
<b>TARC:</b>	3:00 p.m.	No meeting	8 <sup>th</sup>	6 <sup>th</sup>
<b>BPAC*:</b>	7:00 p.m.	25 <sup>th</sup>	22 <sup>nd</sup>	27 <sup>th</sup>
<b>FTAC:</b>	10:00 a.m.	19 <sup>th</sup>	No Meeting	No Meeting

\* South Miami Commission Chambers

Contact the MPO for room numbers: (305) 375-4507

### Chairperson

Barbara Carey-Shuler, Ed.D.

### Voting Members

Bruno A. Barreiro  
Joe. J. Celestin  
Jose "Pepe" Diaz  
Manuel A. Diaz  
Betty T. Ferguson  
Shirley M. Gibson  
Perla T. Hantman  
Sally A. Heyman  
William H. Kerdyk  
M. Ronald Krongold  
Joe A. Martinez

Raul L. Martinez  
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Dennis C. Moss  
Dorrian D. Rolle  
Natacha Seijas  
Darryl K. Sharpton  
Jose Smith  
Katy Sorenson  
Rebeca Sosa  
Javier D. Souto

### Non-Voting Members (FDOT District VI)

John Martinez, P.E.

Gary L. Donn, P.E.

### County Mayor

Alex Penelas

### County Manager

George M. Burgess

### Surface Transportation Manager/ Asst. County Manager

Carlos F. Bonzon, Ph.D. P.E.

### MPO Secretariat

Jose-Luis Mesa, Ph.D.  
Director

Metropolitan  
Planning  
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Transportation!



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